

WATER FITTINGS LEGEND:

- 1 8" TEE
- 2 8"x6" TEE
- 3 6" 90° BEND
- 4 8" 45° BEND
- 5 8" GATE VALVE
- 6 FIRE HYDRANT ASSY. PER UDACS PLATE 7
- 7 2" BLOW-OFF ASSEMBLY W/CAP PER UDACS PLATE 4
- 8 8" 22-1/2" BEND
- 9 3/4" WATER METER PER UDACS PLATE 1B (TYPICAL)
- 10 3/4" WATER METER PER UDACS PLATE 1D
- 11 5/8" WATER METER PER UDACS PLATE 1B
- 12 8"x6" REDUCER
- 13 8" 22-1/2" BEND
- 14 6" GATE VALVE
- 15 8" 45° BEND
- 16 8" 11-1/4" BEND
- 17 8" 11-1/4" BEND

BENCHMARK

CITY OF LAS VEGAS BENCHMARK # 0LV09 36NWS
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF PAVILLION CENTER AND GREENMOOR.
ELEVATION = 927.9652 METERS (NAVD 88)
ELEVATION = 3044.50 US FEET (NAVD 88)

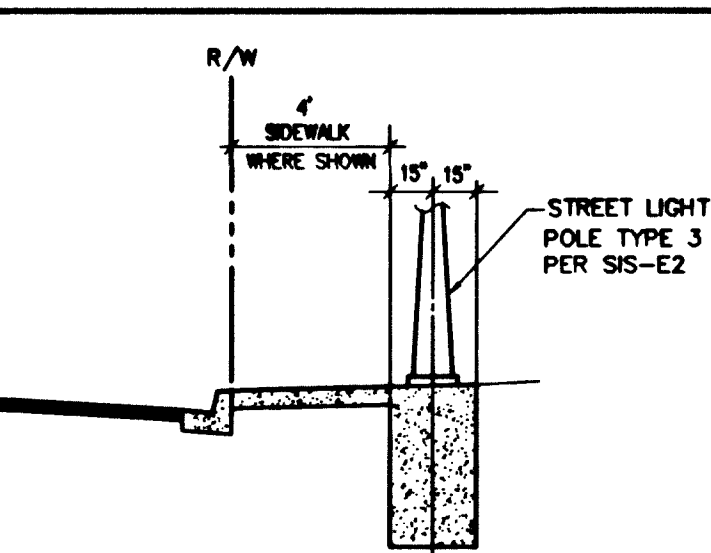
NOTE:

LOTS 12-16, 141-143
THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

NOTE:

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER MANUFACTURER INSTRUCTIONS
ESN.062

SERVICE LATERALS FOR LOTS: 33-46, 120-128 WILL BE TAPPED ON EXISTING MAIN BY OWNER'S CONTRACTOR UNDER DIRECTION OF THE LVVWD.



TYPICAL STREET LIGHT LOCATION DETAIL

BENCHMARK

CITY OF LAS VEGAS BENCHMARK # 0LV09 36NWS
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF PAVILLION CENTER AND GREENMOOR.
ELEVATION = 927.9652 METERS (NAVD 88)
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LVVWD NOTES

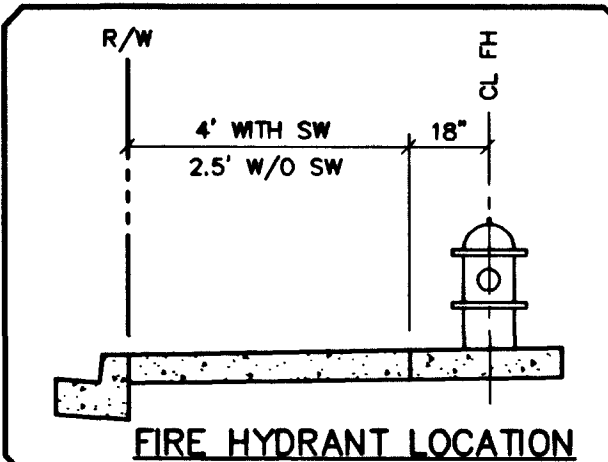
LVVWD PROJECT # 27731

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, FORTY-EIGHT (48) HOUR NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATIONS SUPPORT CENTER (258-7171) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO A LVVWD INSPECTING WHEN REQUESTING INSPECTION, PLEASE REFER TO THE PROJECT NUMBER IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWING, AND SPECIFICATIONS AND THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT, UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO INCHES (2") IN DIAMETER AND SMALLER SHALL BE COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, OUTTERS, CURBS AND VALLEY OUTTERS.
8. THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND A SANITARY SEWER OR STORM SEWER LINE CROSS:
- A. MINIMUM EIGHTEEN INCH (18") VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE. IF THE VERTICAL SEPARATION CANNOT BE MAINTAINED OR THE WATER LINE MUST BE PLACED UNDER THE SANITARY OR STORM SEWER LINE, THE SANITARY OR STORM SEWER LINE MUST BE CONSTRUCTED WITH ONE OF THE FOLLOWING OR, AS SHOWN ON THESE PLANS:
- A. POTABLE WATER SUPPLY QUALITY MATERIAL
- B. ENCASEMENT, WITH FOUR INCH (4") CONCRETE (MINIMUM)
- C. SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.
- EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE WATER MAIN, A MINIMUM TEN FOOT (10') DISTANCE PERPENDICULAR TO THE EXTERIOR OF MAIN.
9. WARNING TAPE SHALL BE REQUIRED OVER ALL MAINS, ALL SIX INCH (6") DIAMETER AND LARGER SERVICE LATERALS, AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAIN IN ACCORDANCE WITH STANDARD PLATE NO. 27.
10. ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED PRIOR TO CONNECTION TO THE LVVWD'S DISTRIBUTION SYSTEM.
11. THE CONTRACTOR MUST OBTAIN ALL METERS TWO INCHES (2") AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICK-UP.
12. CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVVWD APPROVAL AND PROPER NOTIFICATION, BETWEEN THE HOURS OF 10:00 P.M. AND 6:00 A.M. SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE A TEMPORARY SERVICE FEED BE INSTALLED, WITHOUT LVVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEED MUST HAVE PRIOR LVVWD APPROVAL.
13. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD'S PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION OR SPECIFICALLY APPROVED ON THESE PLANS.

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.19 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

UTILITY LEGEND

- EX 8" W --- EXISTING WATER LINE W/SIZE
- 8" W --- PROPOSED WATER LINE W/SIZE
- 3/4" PROPOSED WATER LATERAL & METER PER UDACS PLATE 1B UNLESS OTHERWISE NOTED
- EXISTING FIRE HYDRANT W/6" LATERAL & 6" G.V.
- PROPOSED FIRE HYDRANT W/6" LATERAL & 6" G.V.
- EX 8" S --- EXISTING SEWER LINE W/SIZE
- 8" S --- PROPOSED SEWER LINE W/SIZE
- PROPOSED SEWER LATERAL
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- 0" LIP DRIVEWAY
- GATE VALVE
- 1-1/4" SL CONDUIT
- TYPE 5A 150W STREET LIGHT PER SIS E-1
- TYPE 3A 100W STREET LIGHT PER SIS E-1
- EXISTING STREET LIGHT
- CONCRETE DRIVEWAY
- 8" W 8" W WATER REDUCER
- NO 3 1/2 PULLBOX
- 125A PAD MOUNTED STREET LIGHT SERVICE POINT
- REQUIRES BACKWATER VALVE
- REQUIRES PRESSURE REDUCER VALVE



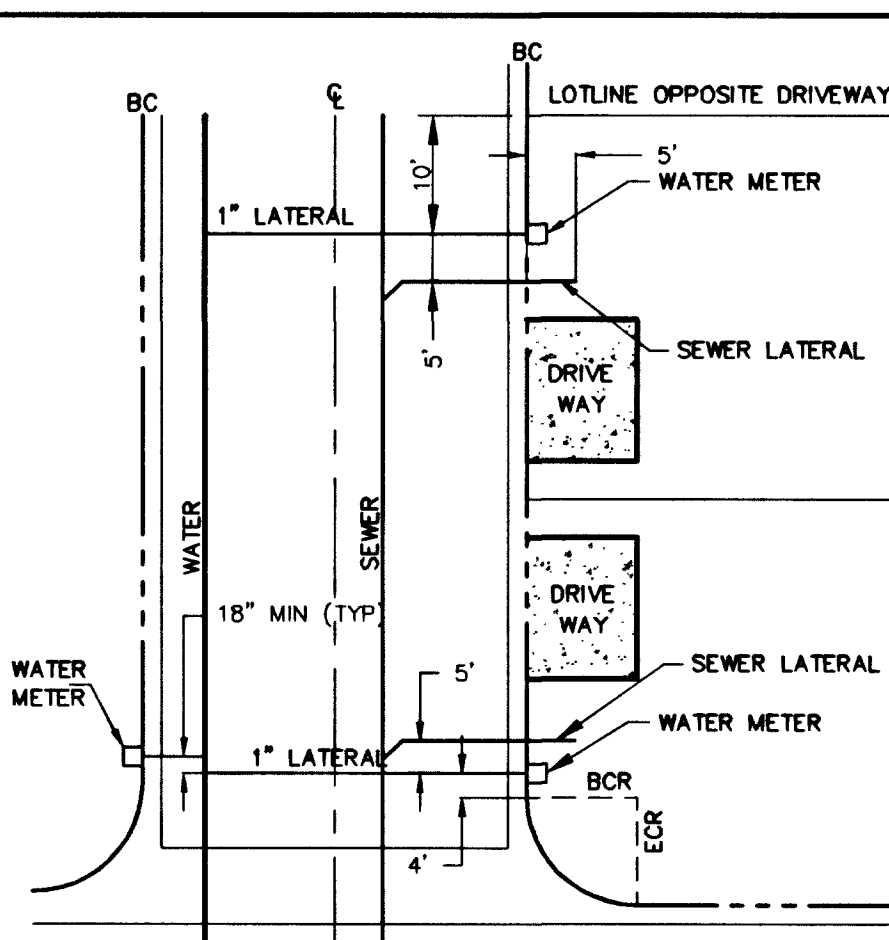
FIRE HYDRANT LOCATION

CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING STANDARDS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE SUMMERLIN IMPROVEMENT STANDARDS (SIS).
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC/ELECTRICAL FIELD OPERATIONS DIVISION AND THE CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623.10.03(E) OF THE SPECIFICATIONS.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL EMPTY CONDUIT SHALL HAVE PULL STRINGS INSTALLED PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE OF EIGHTEEN INCHES (18") TO THE FACE OF STREET LIGHTING POLE ON ALL SIDES WHEN STREETLIGHT IS INSTALLED BEHIND SIDEWALK, AND SHALL SHUT AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE ELECTRICAL SERVICES SECTION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NEVADA POWER COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED AT NO EXPENSE TO THE CITY OF LAS VEGAS.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.

APPROVALS

[Signature]
CITY FIRE MARSHAL
DATE: 5/19/03
LAS VEGAS VALLEY WATER DISTRICT
DATE:



TYPICAL WATER & SEWER SERVICE LAYOUT (NOT TO SCALE)

ESTIMATE OF WATER QUANTITIES

6" PVC WATER MAIN	181 L.F.
8" PVC WATER MAIN	950 L.F.
8" DIP WATER MAIN	0 L.F.
3/4" WATER METER (UDACS PLATE 1B) (TYPICAL)	36 EA.
5/8" WATER METER (UDACS PLATE 1B)	22 EA.
3/4" WATER METER (UDACS PLATE 1D)	2 EA.
2" BLOW-OFF ASSEMBLY W/CAP	1 EA.
8" TEE	0 EA.
8" x 6" TEE	2 EA.
6" 90° BEND	0 EA.
8" 45° BEND	0 EA.
8" 22-1/2" BEND	2 EA.
6" 11-1/4" BEND	0 EA.
8" x 6" REDUCER	0 EA.
STD. FIRE HYDRANT ASSEMBLY W/ 6" LATERAL, 6" GATE VALVE	2 EA.
8" GATE VALVE	0 EA.
6" GATE VALVE	1 EA.
6" 45° BEND	0 EA.
6" 22-1/2" BEND	1 EA.
8" 11-1/4" BEND	2 EA.

NOTE: QUANTITIES ARE APPROXIMATE ONLY- CONTRACTOR TO VERIFY.

BASIS OF BEARING

CONTROL MONUMENTS 208, 209 AND 211 AS SHOWN ON THAT CERTAIN MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 92, PAGE 42 OF SURVEYS.

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS: 1,500 GALLONS PER MINUTE
AT 20 psi RESIDUAL PRESSURE.
BASED ON:
SQUARE FOOTAGE: 3600 SF
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A
BUILDING HEIGHT: 20' ±
NUMBER OF STORIES: ONE-STORY
TYPE OF CONSTRUCTION: TYPE 5 NR
OCCUPANCY: SINGLE-FAMILY
FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NONE
REVIEWED BY: *[Signature]* DATE: 5/19/03

SEWER FLOW CALCS

DAILY AVERAGE FLOW = 0.015 MGD
PEAK FLOW = 0.043 MGD

TRAFFIC LEGEND

- 9" D3 STREET NAME SIGN (PER STD DWG 250)
- 30" STOP SIGN (R1-1) LOCATE AT BCR
- BLUE REFLECTIVE MARKER
- STREET SIGN AS NOTED PER PLAN

BASIS OF BEARING

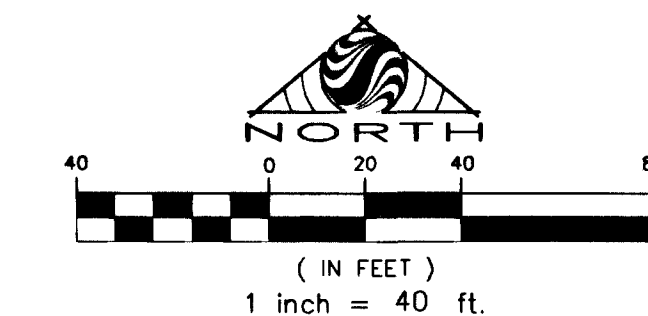
CONTROL MONUMENTS 208, 209 AND 211 AS SHOWN ON THAT CERTAIN MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, IN FILE 92, PAGE 42 OF SURVEYS.

Call before you Dig.
1-702-593-6111

Call before you Dig.
1-800-227-2600

TRAFFIC LEGEND

- 9" D3 STREET NAME SIGN (PER STD DWG 250)
- 30" STOP SIGN (R1-1) LOCATE AT BCR
- BLUE REFLECTIVE MARKER
- STREET SIGN AS NOTED PER PLAN



KEYMAP

N.T.S.

NOTE:

ADD 3100 TO ALL ELEVATIONS

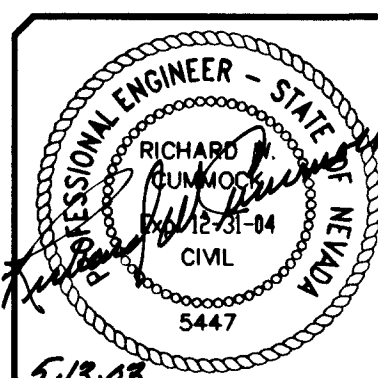
SEE SHEET 2 FOR ABBREVIATIONS, LEGENDS AND ENGINEER'S ESTIMATE OF QUANTITIES

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HILLSTONE AT THE SUMMERLIN VISTAS - UNIT 2
UTILITY & TRAFFIC PLAN



5/19/03
SHEET 9 of 10
C.L.V. DWG # 10744723-2